United States Department of Agriculture

NRCS Natural Resources Conservation Service

West Virginia

2008 Annual Report

Report Contents:

2008 Highlights:

- 19,307 occurrences of brief technical assistance
- 1,570 conservation systems applied
- 102 Comprehensive Nutrient Management Plans planned
- 1,223 watering facilities planned
- 405,000 acres of soil surveys updated
- Little Whtestick Phase 3 completed

Helping People Help the Land

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Fiscal Year 2008 was a very productive and challenging year for the West Virginia Natural Resources Conservation Service (WV–NRCS). The success outlined in this report was the result of a lot of teamwork, partnerships, and collaboration. It was a record year for NRCS-WV in several ways:

- Contract Obligation - 547 contracts written in six Farm Bill Programs on 50,807 Acres obligating $12,294,628 in financial assistance.
- Practice Implementation – Over 9800 individual conservation practices installed.
- Project Activity – Little Whitestick, Elkwater Fork, Lost River 16, Deckers Creek, Dunloup Creek, New Creek 14 (Rehab), and North Fork of the Hughes.
- Planning Activity – 154,700 acres with Conservation Plans, 102 CNMPs, Big Sandy Rapid Watershed Assessment (RWA), Clarksburg dam removal study, and began the Lower Shenandoah RWA.
- Soils/Resource Inventory – 405,000 acres updated, four written reports, one new series, new interpretation for composting catastrophic morality, and on-going saturated conductivity soil and phosphorus studies.
- RC&D – 6,100 acres benefited, Purple Loosestrife control, 27 mile trail construction underway – North Bend State Park.

The list could go on with more accomplishments. We also made substantial and lasting structural changes to our organization in FY08 including duty changes in the State Office and re-aligning our service boundaries with our Conservation District partners.

We very much value the role of farmers, landowners, state and local conservation agencies, Conservation Districts, and the members of the State Technical Committee in our cooperative efforts to provide conservation assistance.

Kevin Wickey
State Conservationist
West Virginia

Conservation Programs Summary

Conservation Technical Assistance (CTA)
The foundation and history of NRCS is based on helping private landowners and land users voluntarily determine objectives, identify resource concerns, and plan/apply conservation practices on their land. NRCS accomplishes this through professionally trained staff helping people make wise decisions about their natural resources. CTA ssistance funds all conservation planning activities at the field office level. In 2008, WV–NRCS provided 19,307 brief technical assistance services and wrote conservations plans on 156,020 acres.

Agricultural Management Assistance (AMA)
AMA provides cost- share assistance to agricultural producers to voluntarily address issues such as water management, water quality, and erosion control by incorporating conservation into their farming operations. AMA is available where participation in the Federal Crop Insurance is low.

Conservation Security Program (CSP)
CSP rewards farmers who meet the highest standards of conservation and environmental management on their operations.

Environmental Quality Incentives Program (EQIP)
EQIP helps farmers address natural resource concerns such as animal waste, cropland, erosion, grazing and forest land management.

Farm and Ranch Land Protection Program (FRPP)
FRPP provides matching funds to help purchase conservation easements to keep productive farmland in agricultural use. USDA partners with state or local governments and non-governmental organizations to acquire conservation easements from landowners.

Grassland Reserve Program (GRP)
GRP is designated to help landowners restore and protect grazing lands. NRCS provides funds for permanent or 30-year conservation easements and 10, 15, 20, and 30 year rental agreements.

Wildlife Habitat Incentives Program (WHIP)
WHIP is a program for developing and improving wildlife habitat. West Virginia targeted four major habitat types for financial assistance. These habitat types include the development of riparian areas for improved water quality and wildlife habitat; farm wildlife for small game habitat such as cottontail rabbits and native grasslands for songbirds; protection of rare threatened and endangered species such as the federally endangered clubshell mussel; and woodland wildlife species habitat improvements for ruffed grouse and wild turkey.

2008 Conservation Program Obligations

NRCS implements financial assistance programs by developing a conservation plan and funding conservation practices through program contacts with private landowners.

Program	All contracts	Acres	Financial Assistance Amount
Agricultural Management Assistance (AMA)	8	200	$274,933
Conservation Security Program CSP (existing contracts)	22	2,681	$40,723
Environmental Quality Incentives Program (EQIP)	473	40,792	$8,081,783
Farm and Ranch Land Protection Program (FRPP)	4	1,250	$2,068,000
Grassland Reserve Program (GRP)	6	549	$1,359,194
Wildlife Habitat Incentives Program (WHIP)	34	5,460	$469,995
Total	547	50,807	$12,294,628

Conservation on the Ground

NRCS conservationists work with rural landowners and agricultural producers to develop site specific conservation plans to conserve the natural resources on their property. These plans include conservation practices to protect soil, water and air resources and provide critical habitat for wildlife. Conservation practices can include physical practices like buffers and field boarders or adopting new methods of management such as not tilling the soil or applying nutrients according to a nutrient management plan.

2008 Conservation Practices Summary

Practices	Planned	Applied
Access Control (ac)	19,279	10,610
Animal Trails and Walkways (ft)	15,077	12,875
Brush Management (ac)	10,095	3,850
Comprehensive Nutrient Management Plan (no)	102	85
Conservation Crop Rotation (ac)	5,705	2,438
Cover Crop (ac)	4,819	1,079
Early Successional Habitat Development/Management (ac)	1,324	856
Fence (ft)	1,445,906	609,905
Field Border (ft)	35,368	58,832
Forage Harvest Management (ac)	14,809	8,944
Forest Stand Improvement (ac)	8,064	1,487
Heavy Use Area Protection (ac)	3,208	129
Irrigation Water Conveyance, Pipeline, High-Pressure, Underground, Plastic (ft)	10,176	3,622
Nutrient Management (ac)	42,968	14,450
Pasture and Hay Planting (ac)	10,482	4,266
Pest Management (ac)	6,580	3,276
Pipeline (ft)	447,811	189,843
Prescribed Grazing (528) (ac)	59,234	31,285
Prescribed Grazing (528A) (ac)	2,196	12,981
Residue and Tillage Management, No-Till/Strip Till/Direct Seed (ac)	4,654	2,188
Residue Management, Seasonal (ac)	2,804	1,593
Riparian Forest Buffer (ac)	721	171
Roof Runoff Structure (no)	54	19
Streambank and Shoreline Protection (ft)	1,420	2,150
Tree/Shrub Establishment (ac)	956	1,902
Upland Wildlife Habitat Management (ac)	40,170	25,568
Waste Utilization (ac)	388	1,401
Watering Facility (no)	1,223	567

Watershed Protection and Flood Prevention Programs

The purpose of PL-566 and PL-534 watershed programs are to assist state and local governments plan and carry out works of improvement for watershed protection and restoration. They provide for technical and financial assistance by the NRCS to local organizations representing the people living in small watersheds. The PL-534 authority applies to the Upper Potomac drainage (Grant, Morgan, Mineral, Hardy, Pendleton, and Hampshire Counties), while PL-566 applies throughout the State.

Meetings are continuing with the Dunloup Creek Voluntary floodplain buyout local sponsors. The Lost River Subwatershed Site 16 Plan design continues and sponsors completed a survey appraisal. Paving and the play ground is contracted for the North Fork Hughs River flood control/ water supply dam. Little Whitestick Flood Control Project Phase 3, is complete.

Construction of the Elkwater Fork Dam in the Upper Tygarts Valley River Watershed is in its final stages.

2008 Watershed Operations Benefits

Benefit	PL-566	PL-534	Total
Acres of nutrient management	0	98,208	98208
Acres of animal waste properly disposed	73,450	27,054	100504
Tons of soil saved from erosion	1,185,255	30,290	1215545
Tons of reduction of annual sedimentation	166,249	28,100	194349
Streams and corridors enhanced or protected	154	1,779	1933
Water bodies or stream segments improved that also provide recreational opportunities	62	82	144
Wetlands created, enhanced or restored	303	94	397
Number of structures cpmpleted	1		1
Upland or riparian wildlife habitat created, enhanced or restored	85342	143,778	229120
Number of people benefited	759,858	275,751	1035609
Farms and ranches benefits	654	1,167	1821
Bridges benefited	223	121	344
Public facilities benefited	177	33	210
Businesses benefited	834	64	898
Homes benefited	4509	563	5072
Domestic water supplies benefited	40	65	105
Flood damage reduction benefits to agriculture	$484,665	$30,256,154	$2,333,017
Flood damage reduction benefits to non-agriculture	$1,848,352	$5,162,555	$35,418,709

Resource Conservation and Development (RC&D)

West Virginia has six RC&D Councils that cover all 55 counties. Their goal is to promote economic development and to enhance the environment and standard of living for West Virginia citizens. Together the six RC&D Councils completed 81 projects during FY-08 and have another 196 that are currently active.

2008 RC&D Accomplishment Summary

Accomplishments	Totals
Local Businesses Created or Retained in Rural Communities (number)	152
Business Financed - Monetary (dollars)	30,542
Agriculture: Agri-Tourism (number)	35
Agriculture: Livestock & Poultry (number)	50
Business Benefiting from New Technology (number)	17
People Benefiting from New Technology (number)	213
Recreational Area Established - Area	33
Recreational Area Improved or Retained - Area	2,604
Recreational Area Improved or Retained - Length	300
Tourism Area Improved or Retained (number)	2,602
Visitor Days Increased (number)	11,301
Service Provided or Improved: Community (number)	224
Citizens Served: Total (number)	386,445
Citizens Served: Underserved or Underrepresented (number)	26,843
Citizens Served: Socially or Economically Disadvantaged (number)	22,957

Purple Loosestrife Controlled in Bay Tributary

Following the discovery of purple loosestrife (*Lythrum salicaria*) growing in Warm Springs Run near Berkeley Springs, WV, a small, concerned group formed the Morgan County Purple Loosestrife Task Force to educate the public and to implement a control program. The goal was to protect the habitat of Harperella (*Ptilimnium nodosum*), which is found in two nearby streams in the county. Harparella is a federally listed endangered species with only ten known populations in the world. Purple loosestrife is a highly aggressive wetland plant that invades the same ecosystem where the fragile Harparella lives. Thanks to a partnership that included the Potomac Headwaters RC&D, NRCS, US Fish and Wildlife, state agencies and the local Master Gardeners, grants of over $26,000 were obtained and matched by volunteer service to implement a three-year monitoring and control program.

The efforts of the task force have been successful in both controlling purple loosestrife and in educating the public.

The presence of purple loosestrife along Warm Springs Run has been significantly reduced to a level that can be controlled with minimal annual maintenance.

Soil Survey

NRCS–WV Soil Scientists updated soil information on 405,000 acres in West Virginia during Fiscal Year 2008. This significant progress was completed from our new MLRA Soil Survey Offices in Morgantown and Huntington, West Virginia. NRCS field soil scientists updated information in Wood, Wirt, Putnam, Cabell, Tucker, Barbour, Mercer, Summers, and Randolph Counties in West Virginia. The updated information is now part of the Web Soil Survey (http://www.wv.nrcs.usda.gov/soils.html) which allows for quick dissemination of the information to the public and has become the Agency's official source for soil information. The staff also completed printed reports for Logan, Mingo, Jackson, and Mason Counties.

NRCS–WV continues to improve the soil survey database by refining the ranges of saturated hydraulic conductivity in soils. This particular measurement affects several critical soil interpretations particularly those affecting runoff and water movement through the profile. Staff work in this area resulted in a second place finish (out of 57 papers) at the International Conference on Hydropedology at Pennsylvania State University this summer.

NRCS–WV developed several new soil interpretations for the Web Soil Survey including interpretations for septic tank filter fields and woodland interpretations for the suitability of walnut and cherry.

WV Soil Interpretation for Disaster Planning

Disease and natural disasters are two examples that could potentially cause catastrophic losses of poultry to West Virginia (WV) farmers. A catastrophic loss is considered to be a loss greater than can be handled by a grower in a reasonable amount of time. Disposal of such losses can be expensive, time consuming, and cause adverse impacts on the environment. West Virginia soils commonly exhibit properties such as near surface bedrock and water tables, extremely clayey or sandy subsoils, steep slopes, flooding or are located in karst areas. These individual soil properties impose very limiting conditions for the disposal of large numbers of birds (which could exceed 20,000) by the burial method due to a catastrophic loss.

The Natural Resources Conservation Service (NRCS) in WV and the WV Department of Agriculture (WVDA) have concluded field testing of a local soil interpretation, developed NRCS–WV for the disposal of catastrophic losses incurred by WV poultry farmers. It is designed to rate the soils for disposal by composting in windrows on the soil surface. Historically following a disaster, soils were sought out to dispose of the carcasses by burying them. The interpretation rates the overall suitability of the soil while indicating which specific soil properties are the most limiting.

The overall goal of this project is to develop a pre-disaster preparedness plan on every poultry farm in West Virginia. This and the interpretation would be an integral part of the plans development. Anticipated benefits of this plan include improved quarantine activities, timely response and disposal, protection of soil and water resources, protection of human and animal health, and the production of a beneficial soil amendment.

The Soil Survey Staff identified a new West Virginia soil series this year in their update of the Soil Survey for Fayette, Raleigh, Mercer, and Summers Counties. The new series, Pipestem, is found in the New River Gorge.

The Appalachian Plant Materials Center

The Appalachian Plant Materials Center (PMC), located in Alderson, West Virginia, serves the Appalachian Region. The Appalachian Plant Materials Center serves a wide variety of land users in the Appalachian Region by evaluating plants for their ability to solve specific conservation problems related to: climate, rugged topography, soil limitations, various land uses, fish and wildlife needs, and desires of the landowners.

The PMC has 37 active study projects, 29 are potential new release projects. In FY 2008, the PMC released a new plant release, 'Augusta' orchardgrass, published 10 plant propagation protocols in Plant Propagation Network and one Plant Guide

The PMC assisted 414 customers including 123 cooperators, 113 field and other NRCS offices, and 178 general public customers.

Dactylis glomerata L., orchardgrass, is a persistent, cool season bunchgrass. Orchardgrass performs well on different textured soils ranging from clay to gravely loams and on shallow to deep soils

Cherokee "Winterjon" Apple Propagation

The Eastern Band of the Cherokee Nation requested plant materials assistance through the NRCS Liaison to the Cherokee Nation with development of propagation techniques for Malus spp., or apple, in late 2006. Tribal elders have prioritized black bear (Ursus americanus) habitat improvement on the reservation and targeted an indigenous apple to improve late fall and early winter bear food sources.

The Cherokee describe "Winterjon" apple as a small to medium sized very firm fruit that remains attached to the tree and retains its crispness well into the early winter months. They report that black bear have been observed seeking out these apple trees to feed on the fruit well into January and frequently February. These apple trees were once abundant throughout the reservation and black bear were also significantly more numerous.

In order to maintain genetic purity, Malus spp. is propagated by grafting. Scion wood was collected from "winterjon" trees identified by the Cherokee in late February 2007. This scion wood was grafted onto MM 9 rootstock obtained from commercial suppliers and planted in 3 gallon containers. Approximately 75% of the grafts were successful and 50 container grown trees were returned to Cherokee, North Carolina for field planting on the reservation in the spring of 2008. Performance of these trees will be monitored annually until they reach fruit bearing age and perhaps longer. Six of the "winterjon" apple trees were retained for monitoring at the PMC and to provide a future scion wood source.

Cherokee 'Winterjon' Apple

Protecting Water Quality in the Chesapeake Bay

Assisting West Virginia Farmers with Water Quality and Wildlife Habitat — A Case Study

The Natural Resources Conservation Service (NRCS) provides landowners with conservation technical assistance (CTA) to address water quality, erosion control, grazing management, and wildlife habitat improvement issues on their property. A Hardy County, West Virginia cattle producer requested help from NRCS to find an alternative to in-stream watering for livestock.

NRCS field staff worked with Claude and Sheila Bradfield to write a Conservation Plan which documents resource concerns, landowner objectives, and their decisions. The plan called for excluding cattle from the stream by fencing a 4.5 acre riparian forested buffer─protecting 1,540 feet of streambank and capturing runoff from the barn lot─filtering out nutrients before they reach the waterway. The stream banks were stabilized using natural stream restoration techniques. A stabilized stream crossing allows cattle to cross the stream in only one location. Trees were planted to provide wildlife habitat and shade the stream. The key to making this new system work is to provide water for the cattle. A watering system was installed so the livestock no longer need access to the stream for water, protecting water quality in the Potomac, and ultimately the Chesapeake Bay.

Other agricultural producers have cited this project as their reason for coming into the local NRCS office to inquire about assistance with their operations. Conservation practices in West Virginia reduce the effects of pesticides, fertilizers, and sediment in the Chesapeake Bay.

Conservation Innovation Grants (CIG)

Conservation Innovation Grants is a program intended to stimulate the development and adoption of innovative conservation approaches and technologies while leveraging Federal investment in environmental enhancement and protection, in conjunction with agricultural production. In West Virginia, three CIG Grants were awarded in FY08, all within the Chesapeake Bay watershed..

Organization	Shortened Project Name	Funds Awarded	Total Project Value
Coaltec Energy USA, Inc.	Broiler Production Best Practice Using Gasification of Poultry Litter to Produce Heat and Chilling for Economic and Environmental Benefits	$475,500	$1,024,394
West Virginia University Research Corporation	Multi Species Grazing System Using Sheep and Cattle for Improved Ecological Soil Conditions	$206,000	$414,420
West Virginia University Research Corporation	Demonstration of Precision Agriculture on Grasslands in the Greenbrier Valley	$75,800	$151,638